

PHILIPS

sense and simplicity

Agile & Scrum

...applied in a complex Medical environment

Agenda

- Intro
- Building interventional tools
- Our transition from Waterfall to Agile
- Legislation
- Agile values implemented
- Building medical software iteratively



Duration: 45 minutes



Ron Eringa

Job info:

- SW Team leader @ Philips Healthcare
- Department: Application Solutions
- Current project: EP navigator
- Certified Scrum Master
- Coaching Agile & Scrum

Personal:

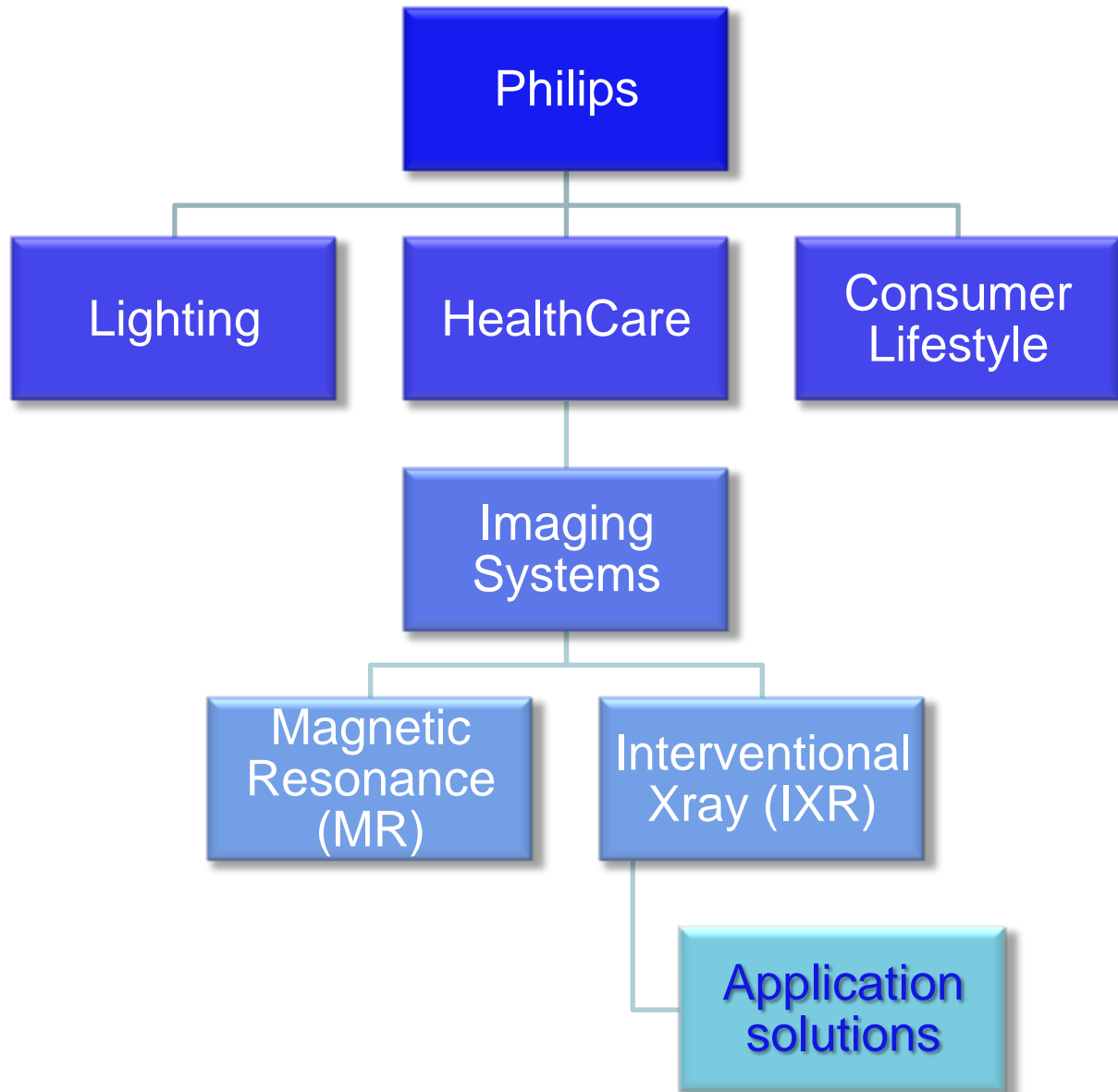
- Married
- Father of 2 girls

Hobbies:

Running, Skiing, Photography

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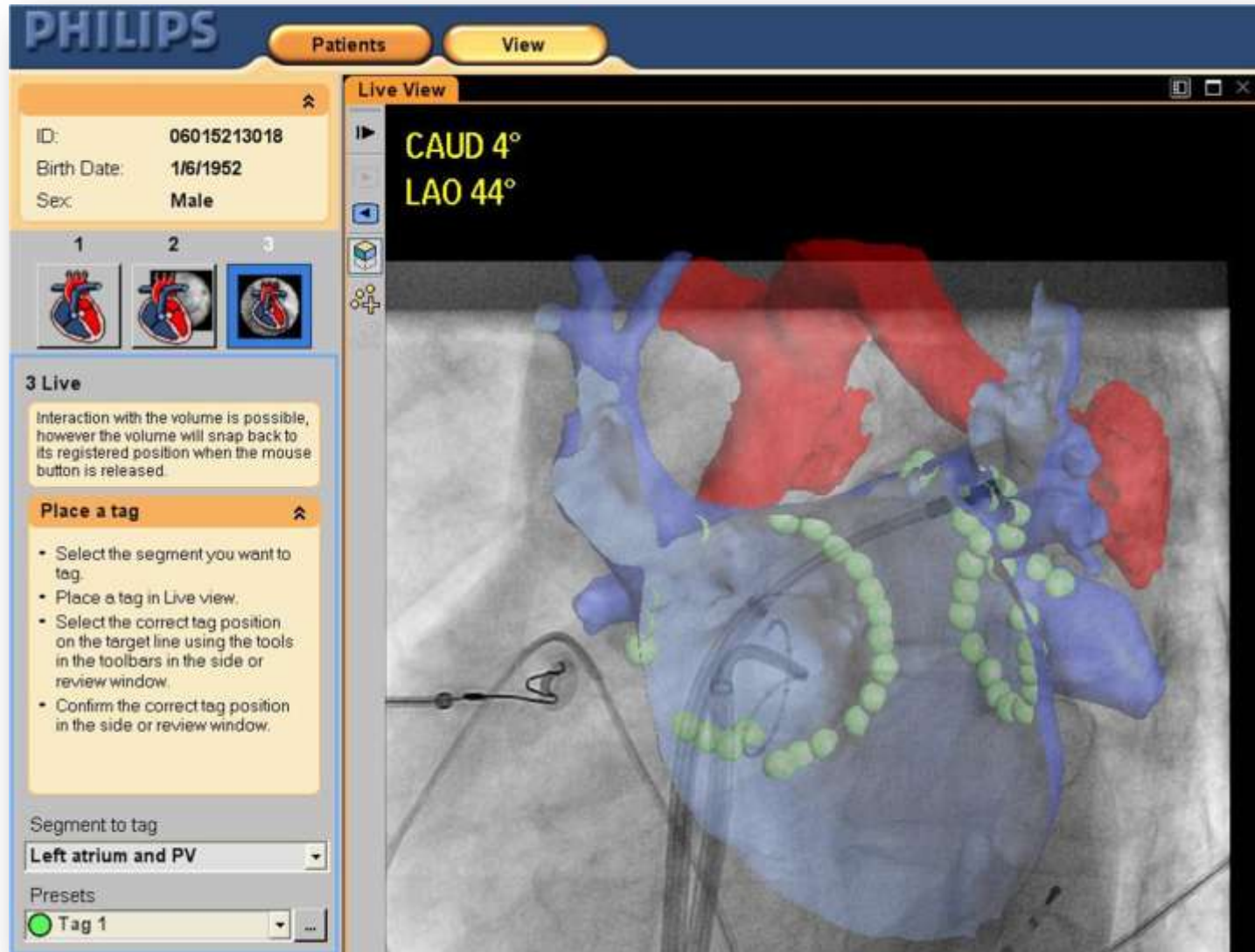


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Fast changing landscape



Interventional tools



The myth of waterfall



The common goal of Agile & legislation



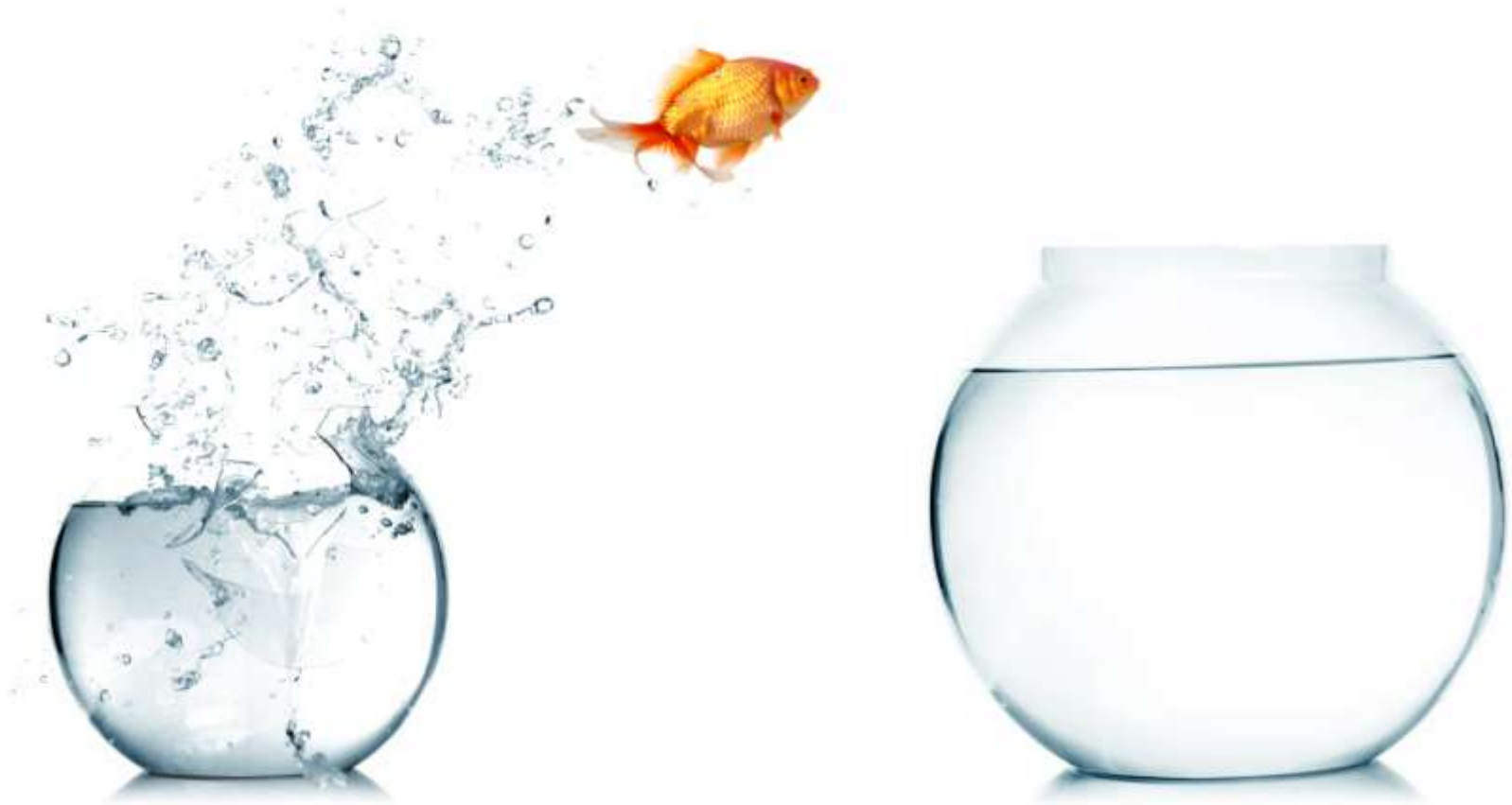
Individuals & interactions over processes & tools



Working software over comprehensive documentation



Responding to change over following a plan



High-level activities

Iterations:



Start:

- High level project plans (scoping)
- 0-order backlog preparations
- Prototyping design aspects



High-level activities

Iterations:



At start

- Minimal set of high level features committed
- Backlog high level prioritized

At end:

- Release verification & validation
- Release documentation



Mid-level activities

Iterations:



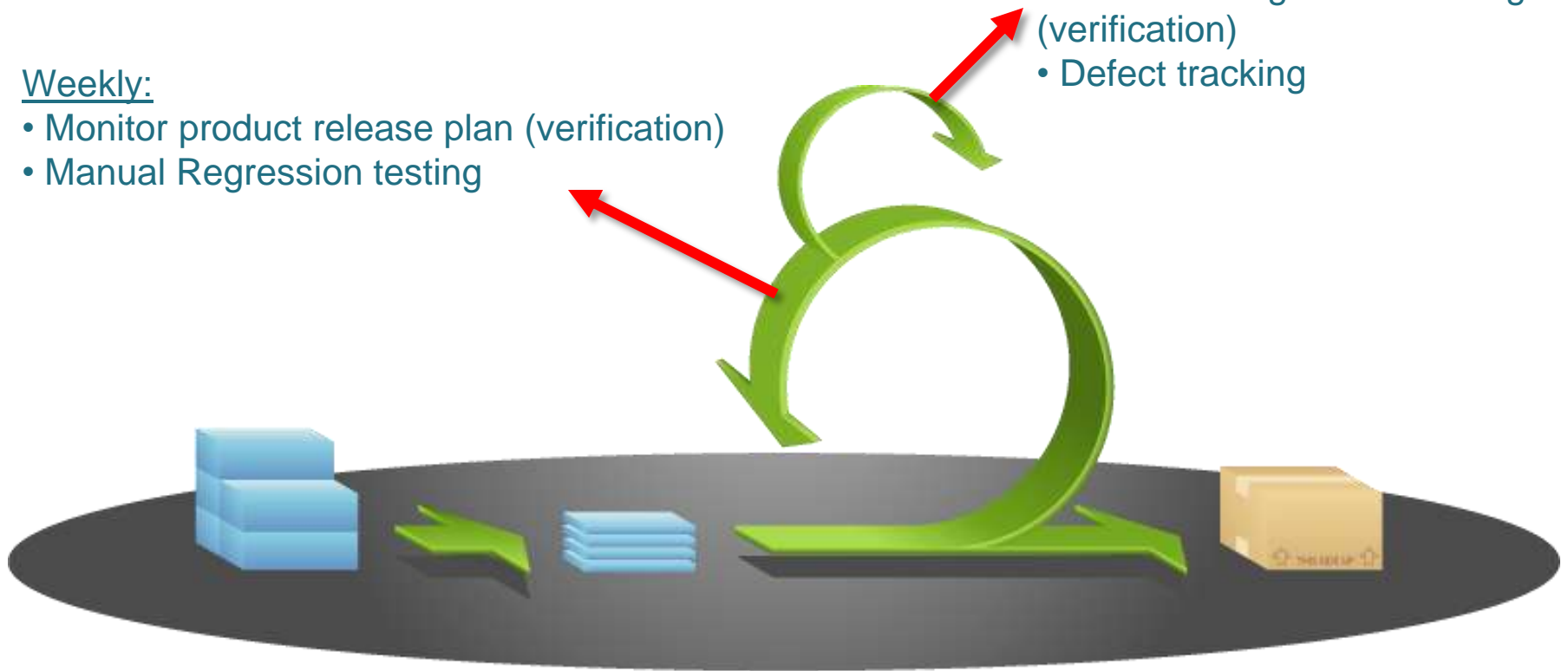
Release level:

Weekly:

- Monitor product release plan (verification)
- Manual Regression testing

Daily:

- Automatic regression testing (verification)
- Defect tracking



Mid-level activities

Iterations:



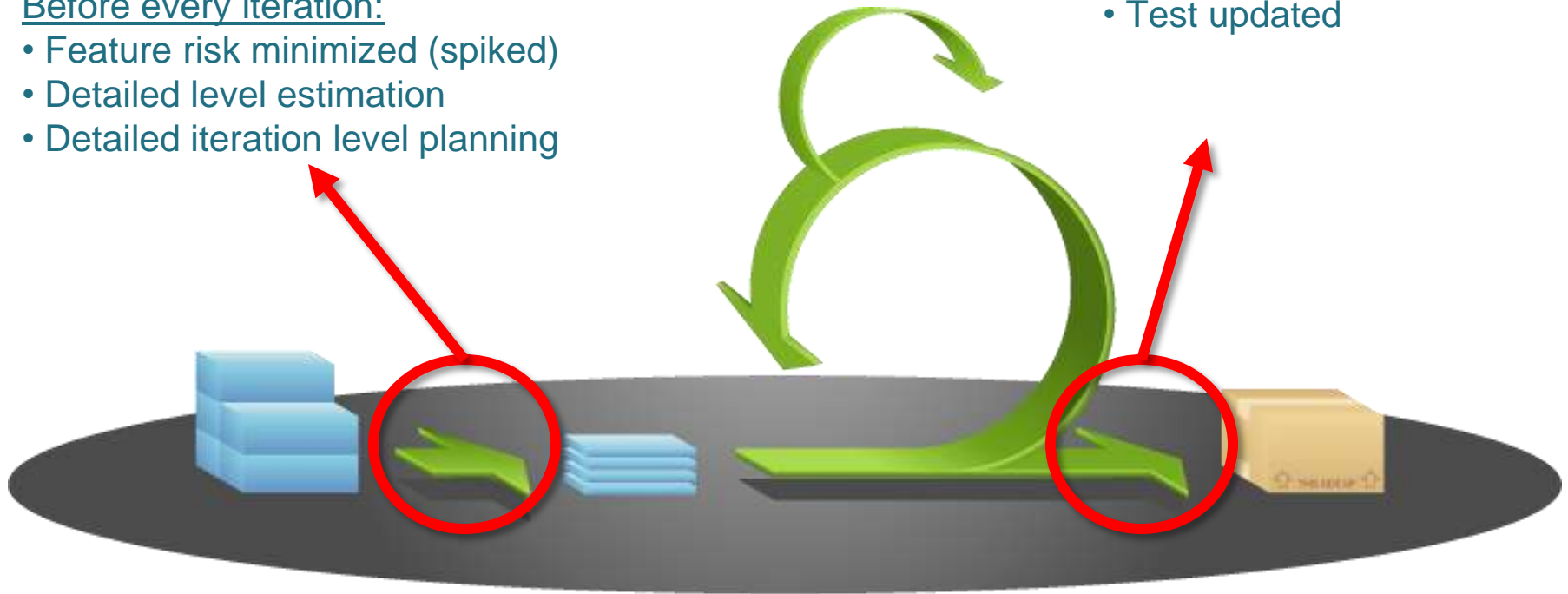
Iteration level:

Before every iteration:

- Feature risk minimized (spiked)
- Detailed level estimation
- Detailed iteration level planning

Done, when:

- Unit tested
- Requirements updated
- Design updated
- Test updated



Low-level activities

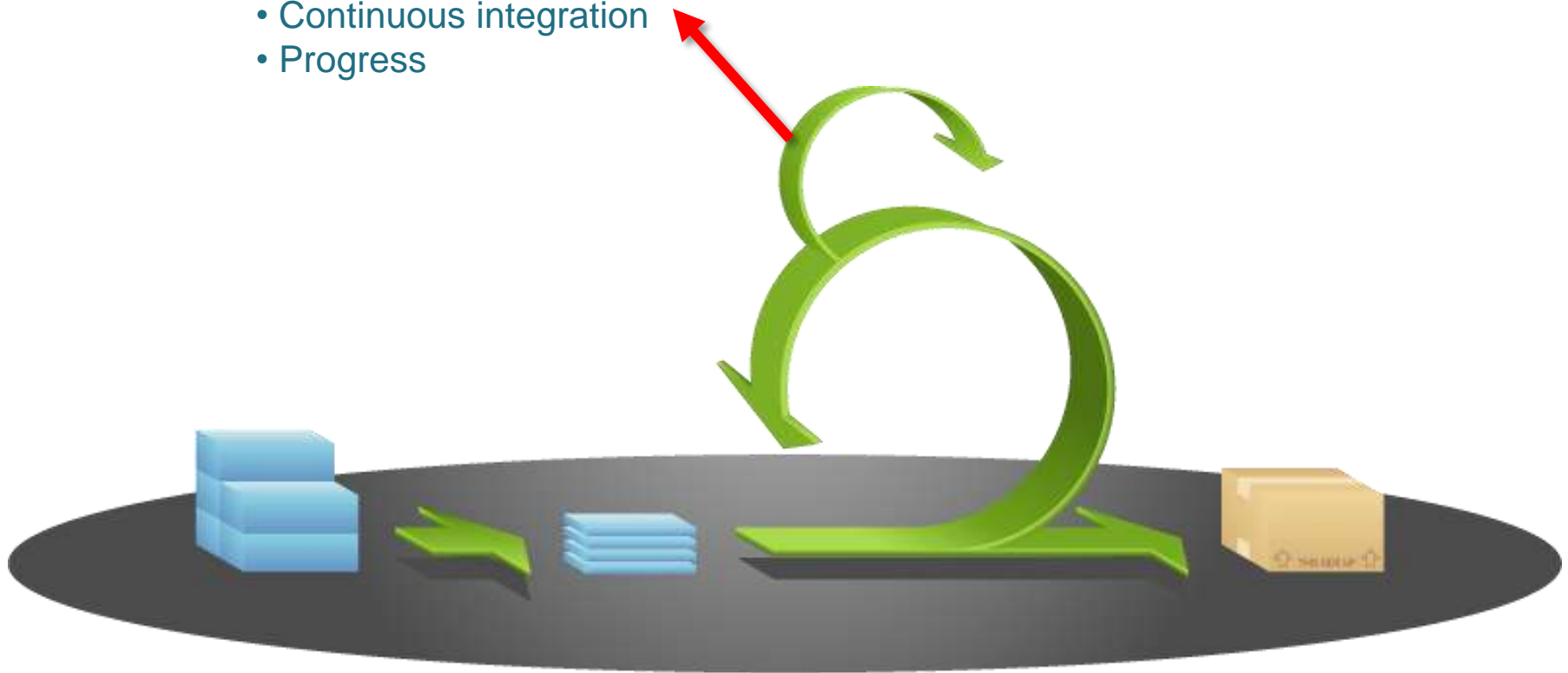
Iterations:



Iteration level:

Daily:

- Automatic integration testing
- Continuous integration
- Progress



Sharing knowledge



Courage



Resources

- *“Adopting Agile in an FDA Regulated Environment”* (Abbott 2009)
- *“Agile Software Development with Verification and Validation in High Assurance and Regulated Environments”* (Leffingwell, 2011)
- *“Guidance on the use of AGILE practices in the development of medical device software”* (AAMI, 2011)
- *“Verandering is ook in de medische technologie een prima basis”*
(Bits & Chips nr. 13, 4 november 2011)
- <http://davidfrico.com/afei-2010.doc>



